SCORE Search Results Details for Application 10552515 and Search Result 20080630_144055_us-10-552-515-10.rag.

This page gives you Search Results detail for the Application 10552515 and Search Result 20080630_144055_us-10-552-515-10.rag.

Go Back to previous page

GenCore version 6.2.1

OM protein - protein search, using sw model

Run on: June 30, 2008, 17:43:01 ; Search time 71 Seconds
(without alignments)
76.429 Million cell updates/sec

Title: US-10-552-515-10
Perfect score: 44
Sequence: 1 KIYVSLAHV 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 3405708 seqs, 601879884 residues

Total number of hits satisfying chosen parameters: 3405708

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_200711:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000:*
4: geneseqp2001:*
5: geneseqp2002:*
6: geneseqp2003a:*
7: geneseqp2003b:*
8: geneseqp2004a:*

9: geneseqp2004b:*
10: geneseqp2005:*
11: geneseqp2006:*
12: geneseqp2007:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	44	100.0	9	8	ADT77673	Adt77673 Splice va
2	44	100.0	843	10	AEB13424	Aeb13424 Human pro
3	44	100.0	885	10	AEB13426	Aeb13426 Human pro
4	44	100.0	898	4	ABG15488	Abg15488 Novel hum
5	44	100.0	933	8	ADT77664	Adt77664 Splice va
6	44	100.0	933	11	AEL84788	Ael84788 Tumor mar
7	35	79.5	185	4	ABG29580	Abg29580 Novel hum
8	34	77.3	76	9	AFQ14910	Afq14910 Glycine m
9	34	77.3	251	3	AAG06226	Aag06226 Arabidops
10	34	77.3	306	3	AAG06225	Aag06225 Arabidops
11	34	77.3	334	3	AAG06224	Aag06224 Arabidops
12	34	77.3	348	6	ABR41531	Abr41531 Human DIT
13	34	77.3	389	8	ADS21469	Ads21469 Bacterial
14	34	77.3	462	5	AAU79764	Aau79764 Rat dipep
15	34	77.3	462	5	AAU79765	Aau79765 Rat DPPI
16	34	77.3	462	5	AAU79763	Aau79763 Rat dipep
17	34	77.3	462	6	ADE56493	Ade56493 Rat Prote
18	34	77.3	462	6	ADD45350	Add45350 Rat Prote
19	34	77.3	462	6	ADE56490	Ade56490 Rat Prote
20	34	77.3	612	8	ABM84212	Abm84212 Human dia
21	34	77.3	627	8	ABM84211	Abm84211 Human dia
22	34	77.3	700	8	ADJ66499	Adj66499 Meprin A
23	34	77.3	700	8	ADL64965	Adl64965 Human mep
24	34	77.3	780	11	AES75080	Aes75080 S. agalac
25	34	77.3	1078	4	ABG27601	Abg27601 Novel hum
26	34	77.3	1370	5	ABP27517	Abp27517 Streptoco
27	34	77.3	1370	11	AES93230	Aes93230 S. agalac
28	34	77.3	1370	11	AES83948	Aes83948 S. agalac
29	33	75.0	58	8	AFP83834	Afp83834 Glycine m
30	33	75.0	110	9	AFQ15909	Afq15909 Glycine m
31	33	75.0	126	9	AFQ93772	Afq93772 Glycine m
32	33	75.0	381	11	AEL73843	Ael73843 Lawsonia
33	33	75.0	566	2	AAR78619	Aar78619 GalNAc-al
34	33	75.0	566	10	AED08897	Aed08897 Amino aci
35	33	75.0	566	11	AEE86082	Aee86082 Chicken S

36	33	75.0	566	11	AEK64271	Aek64271 Chicken a
37	33	75.0	566	12	AGB01234	Agb01234 Chicken w
38	32	72.7	67	9	AFP86424	Afp86424 Glycine m
39	32	72.7	67	9	AFQ20775	Afq20775 Glycine m
40	32	72.7	69	8	AFR58735	Afr58735 Recombina
41	32	72.7	70	9	AFQ94124	Afq94124 Glycine m
42	32	72.7	229	9	AFQ91478	Afq91478 Glycine m
43	32	72.7	273	11	AFC44083	Afc44083 Soybean a
44	32	72.7	278	6	ABU25449	Abu25449 Protein e
45	32	72.7	293	11	AFC44082	Afc44082 Soybean a

ALIGNMENTS

RESULT 1
ADT77673
ID ADT77673 standard; peptide; 9 AA.
XX
AC ADT77673;
XX
DT 13-JAN-2005 (first entry)
XX
DE Splice variant-novel gene expressed in prostate (SV-NGEP) epitope.
XX
KW Splice variant-novel gene expressed in prostate; SV-NGEP; human;
KW prostate cancer; cytostatic; gene therapy; immunotherapy; epitope.
XX
OS Homo sapiens.
XX
PN WO2004092213-A1.
XX
PD 28-OCT-2004.
XX
PF 05-APR-2004; 2004WO-US010588.
XX
PR 08-APR-2003; 2003US-0461399P.
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Pastan I, Bera TK, Lee B;
XX
DR WPI; 2004-758338/74.
XX
PT New Splice Variant-Novel Gene Expressed in Prostate polypeptide or
PT encoding nucleic acid molecule for diagnosing, preventing or treating
PT cancer, especially prostate cancer.
XX
PS Disclosure; SEQ ID NO 10; 88pp; English.

XX
CC The present sequence is that of a predicted epitope of human splice
CC variant-novel gene expressed in prostate (SV-NGEP) ADT77664. The epitope
CC is predicted to bind HLA2-01 and was identified using an HLA binding
CC motif program. It corresponds to amino acids 562-570 of SV-NGEP.
CC Polypeptides comprising an immunogenic fragment of 8 consecutive amino
CC acids of SV-NGEP which specifically bind to an antibody that specifically
CC binds a polypeptide comprising amino acids 157-933 of SV-NGEP are
CC claimed. The invention provides methods for: detecting prostate cancer in
CC a subject by contacting a sample with an antibody that specifically binds
CC a SV-NGEP polypeptide and detecting the formation of an immune complex,
CC or detecting an increase in expression of SV-NGEP polypeptide or mRNA;
CC producing an immune response against a cell expressing SV-NGEP, for
CC example in a subject with prostate cancer, by administering SV-NGEP
CC polypeptide or polynucleotide to produce an immune response that
CC decreases growth of the prostate cancer; inhibiting the growth of a
CC malignant cell that expresses SV-NGEP by culturing cytotoxic T
CC lymphocytes (CTLs) with SV-NGEP to produce activated CTLs, and contacting
CC these with the malignant cell; and inhibiting the growth of a malignant
CC cell by contact with an antibody that specifically binds SV-NGEP, where
CC the antibody is linked to a chemotherapeutic agent or toxin.
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 44; DB 8; Length 9;
Best Local Similarity 100.0%; Pred. No. 2.9e+06;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 KIYVSLAHV 9
|||||||||
Db 1 KIYVSLAHV 9

RESULT 2
AEB13424
ID AEB13424 standard; protein; 843 AA.
XX
AC AEB13424;
XX
DT 22-SEP-2005 (first entry)
XX
DE Human prostate specific polypeptide #1.
XX
KW Screening; diagnosis; drug delivery; prostate specific polypeptide;
KW cancer; prostate tumor; cytostatic; neoplasm.
XX
OS Homo sapiens.
XX
PN WO2005062788-A2.

XX

PD 14-JUL-2005.

XX

PF 16-DEC-2004; 2004WO-US042406.

XX

PR 22-DEC-2003; 2003US-0531809P.

XX

PA (AVAL-) AVALON PHARM INC.

XX

PI Weigle B, Ebner R;

XX

DR WPI; 2005-497793/50.

DR N-PSDB; AEB13423.

XX

PT Novel isolated prostate specific polypeptide, useful for treating cancer,

PT and identifying agent that modulates activity of cancer related gene.

XX

PS Claim 12; SEQ ID NO 3; 59pp; English.

XX

CC The invention relates to an isolated prostate specific polypeptide

CC comprising one or more immunogenic fragments. The invention also relates

CC to a method of identifying an agent that modulates the activity of a

CC cancer related gene involving contacting a compound with a cell

CC containing a gene under conditions promoting the expression of the gene,

CC detecting a difference in expression of the gene relative to when the

CC compound is not present and identifying an agent that modulates the

CC activity of a cancer related gene, a method of identifying an anti-

CC neoplastic agent involving contacting a cell exhibiting neoplastic

CC activity with a compound first identified as a cancer related gene

CC modulator using and determining a decrease in neoplastic activity after

CC contacting, when compared to when the contacting does not occur, or

CC administering an agent first identified to an animal exhibiting a cancer

CC condition and detecting a decrease in cancerous condition, a method of

CC determining the cancerous status of a cell involving determining an

CC increase in the level of expression in a cell of a gene where an elevated

CC expression relative to a known non-cancerous cell indicates a cancerous

CC state or potentially cancerous state, an antibody that reacts with a

CC prostate specific polypeptide, an immunoconjugate comprising the antibody

CC and a cytotoxic agent, a method of treating cancer involving contacting a

CC cancerous cell in vivo with an agent having activity against a prostate

CC specific polypeptide and an immunogenic composition the prostate specific

CC polypeptide. The prostate specific polypeptide is useful for identifying

CC an agent that modulates the activity of a cancer related gene. The

CC immunogenic composition is useful for treating cancer, preferably

CC prostate cancer in an animal, e.g. human, which involves administering

CC the immunogenic composition that is sufficient to elicit the production

CC of cytotoxic T lymphocytes specific for the prostate specific

CC polypeptide. The invention is useful for identifying anti-neoplastic

CC agents. This sequence represents a human prostate specific polypeptide of

```
CC   the invention.
XX
SQ   Sequence 843 AA;

  Query Match             100.0%;  Score 44;  DB 10;  Length 843;
  Best Local Similarity   100.0%;  Pred. No. 2.8;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 KIYVSLAHV 9
              |||||||||
Db        563 KIYVSLAHV 571


RESULT 3
AEB13426
ID   AEB13426 standard; protein; 885 AA.
XX
AC   AEB13426;
XX
DT   22-SEP-2005  (first entry)
XX
DE   Human prostate specific polypeptide #2.
XX
KW   Screening; diagnosis; drug delivery; prostate specific polypeptide;
KW   cancer; prostate tumor; cytostatic; neoplasm.
XX
OS   Homo sapiens.
XX
PN   WO2005062788-A2.
XX
PD   14-JUL-2005.
XX
PF   16-DEC-2004; 2004WO-US042406.
XX
PR   22-DEC-2003; 2003US-0531809P.
XX
PA   (AVAL-) AVALON PHARM INC.
XX
PI   Weigle B,  Ebner R;
XX
DR   WPI; 2005-497793/50.
DR   N-PSDB; AEB13425.
XX
PT   Novel isolated prostate specific polypeptide, useful for treating cancer,
PT   and identifying agent that modulates activity of cancer related gene.
XX
PS   Claim 12; SEQ ID NO 5; 59pp; English.
XX
CC   The invention relates to an isolated prostate specific polypeptide
```

CC comprising one or more immunogenic fragments. The invention also relates
CC to a method of identifying an agent that modulates the activity of a
CC cancer related gene involving contacting a compound with a cell
CC containing a gene under conditions promoting the expression of the gene,
CC detecting a difference in expression of the gene relative to when the
CC compound is not present and identifying an agent that modulates the
CC activity of a cancer related gene, a method of identifying an anti-
CC neoplastic agent involving contacting a cell exhibiting neoplastic
CC activity with a compound first identified as a cancer related gene
CC modulator using and determining a decrease in neoplastic activity after
CC contacting, when compared to when the contacting does not occur, or
CC administering an agent first identified to an animal exhibiting a cancer
CC condition and detecting a decrease in cancerous condition, a method of
CC determining the cancerous status of a cell involving determining an
CC increase in the level of expression in a cell of a gene where an elevated
CC expression relative to a known non-cancerous cell indicates a cancerous
CC state or potentially cancerous state, an antibody that reacts with a
CC prostate specific polypeptide, an immunoconjugate comprising the antibody
CC and a cytotoxic agent, a method of treating cancer involving contacting a
CC cancerous cell in vivo with an agent having activity against a prostate
CC specific polypeptide and an immunogenic composition the prostate specific
CC polypeptide. The prostate specific polypeptide is useful for identifying
CC an agent that modulates the activity of a cancer related gene. The
CC immunogenic composition is useful for treating cancer, preferably
CC prostate cancer in an animal, e.g. human, which involves administering
CC the immunogenic composition that is sufficient to elicit the production
CC of cytotoxic T lymphocytes specific for the prostate specific
CC polypeptide. The invention is useful for identifying anti-neoplastic
CC agents. This sequence represents a human prostate specific polypeptide of
CC the invention.
XX
SQ Sequence 885 AA;

  Query Match 100.0%; Score 44; DB 10; Length 885;
  Best Local Similarity 100.0%; Pred. No. 3;
  Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 KIYVSLAHV 9
|||||||||
Db 563 KIYVSLAHV 571

RESULT 4
ABG15488
ID ABG15488 standard; protein; 898 AA.
XX
AC ABG15488;
XX
DT 18-FEB-2002 (first entry)

XX
DE Novel human diagnostic protein #15479.
XX
KW Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW food supplement; medical imaging; diagnostic; genetic disorder.
XX
OS Homo sapiens.
XX
PN WO200175067-A2.
XX
PD 11-OCT-2001.
XX
PF 30-MAR-2001; 2001WO-US008631.
XX
PR 31-MAR-2000; 2000US-00540217.
PR 23-AUG-2000; 2000US-00649167.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Drmanac RT, Liu C, Tang YT;
XX
DR WPI; 2001-639362/73.
DR N-PSDB; AAS79675.
XX
PT New isolated polynucleotide and encoded polypeptides, useful in
PT diagnostics, forensics, gene mapping, identification of mutations
PT responsible for genetic disorders or other traits and to assess
PT biodiversity.
XX
PS Claim 20; SEQ ID NO 45847; 103pp; English.
XX
CC The invention relates to isolated polynucleotide (I) and polypeptide (II)
CC sequences. (I) is useful as hybridisation probes, polymerase chain
CC reaction (PCR) primers, oligomers, and for chromosome and gene mapping,
CC and in recombinant production of (II). The polynucleotides are also used
CC in diagnostics as expressed sequence tags for identifying expressed
CC genes. (I) is useful in gene therapy techniques to restore normal
CC activity of (II) or to treat disease states involving (II). (II) is
CC useful for generating antibodies against it, detecting or quantitating a
CC polypeptide in tissue, as molecular weight markers and as a food
CC supplement. (II) and its binding partners are useful in medical imaging
CC of sites expressing (II). (I) and (II) are useful for treating disorders
CC involving aberrant protein expression or biological activity. The
CC polypeptide and polynucleotide sequences have applications in
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC and to produce other types of data and products dependent on DNA and
CC amino acid sequences. ABG00010-ABG30377 represent novel human diagnostic
CC amino acid sequences of the invention. Note: The sequence data for this

```
CC   patent did not appear in the printed specification, but was obtained in
CC   electronic format directly from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 898 AA;

  Query Match             100.0%;  Score 44;  DB 4;  Length 898;
  Best Local Similarity   100.0%;  Pred. No. 3;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 KIYVSLAHV 9
              |||||||||
Db        659 KIYVSLAHV 667


RESULT 5
ADT77664
ID   ADT77664 standard; protein; 933 AA.
XX
AC   ADT77664;
XX
DT   15-JUN-2007  (revised)
DT   13-JAN-2005  (first entry)
XX
DE   Splice variant-novel gene expressed in prostate (SV-NGEP) polypeptide.
XX
KW   Splice variant-novel gene expressed in prostate; SV-NGEP; human;
KW   prostate cancer; cytostatic; gene therapy; immunotherapy; BOND_PC;
KW   NGEP long variant; NGEP long variant [Homo sapiens]; GO5886.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Domain          1. .345
FT                   /label= Cytoplasmic
FT   Region          157. .933
FT                   /note= "An immunogenic fragment comprising 8 consecutive
FT                   amino acids that specifically binds to an antibody that
FT                   specifixally binds to a polypeptide comprising amino
FT                   acids 157-933 is referred to in Claim 1"
FT   Region          170. .178
FT                   /note= "Epitope, predicted to bind HLA2-01"
FT   Region          215. .223
FT                   /note= "Epitope, predicted to bind HLA2-01"
FT   Region          258. .266
FT                   /note= "Epitope, predicted to bind HLA2-01"
FT   Domain          346. .368
FT                   /label= Transmembrane
FT   Domain          369. .421
```

```
FT                   /label= External
FT                   /note= "Cell surface"
FT   Region          403. .411
FT                   /note= "Epitope, predicted to bind HLA2-01"
FT   Domain          422. .441
FT                   /label= Transmembrane
FT   Region          427. .435
FT                   /note= "Epitope, predicted to bind HLA2-01"
FT   Domain          442. .501
FT                   /label= Cytoplasmic
FT   Domain          502. .524
FT                   /label= Transmembrane
FT   Domain          525. .543
FT                   /label= External
FT                   /note= "Cell surface"
FT   Domain          544. .566
FT                   /label= Transmembrane
FT   Region          557. .565
FT                   /note= "Epitope, predicted to bind HLA2-01"
FT   Region          562. .570
FT                   /note= "Epitope, predicted to bind HLA2-01"
FT   Domain          567. .586
FT                   /label= Cytoplasmic
FT   Domain          587. .609
FT                   /label= Transmembrane
FT   Domain          610. .714
FT                   /label= External
FT                   /note= "Cell surface"
FT   Domain          715. .737
FT                   /label= Transmembrane
FT   Domain          738. .761
FT                   /label= Cytoplasmic
FT   Domain          762. .784
FT                   /label= Transmembrane
FT   Domain          785. .933
FT                   /label= External
FT                   /note= "Cell surface"
FT   Region          846. .854
FT                   /note= "Epitope, predicted to bind HLA2-01"
XX
PN   WO2004092213-A1.
XX
PD   28-OCT-2004.
XX
PF   05-APR-2004; 2004WO-US010588.
XX
PR   08-APR-2003; 2003US-0461399P.
XX
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
```

XX
PI Pastan I, Bera TK, Lee B;
XX
DR WPI; 2004-758338/74.
DR N-PSDB; ADT77665.
DR PC:NCBI; gi48093524.
XX
PT New Splice Variant-Novel Gene Expressed in Prostate polypeptide or
PT encoding nucleic acid molecule for diagnosing, preventing or treating
PT cancer, especially prostate cancer.
XX
PS Claim 1; SEQ ID NO 1; 88pp; English.
XX
CC The present sequence is the protein sequence of splice variant-novel gene
CC expressed in prostate (SV-NGEP). SV-NGEP is identical to NGEP from amino
CC acid 1-157, diverging from amino acid 158. Expression analysis in 76
CC normal and foetal tissues showed SV-NGEP to be strongly expressed only in
CC a prostate sample. Claimed methods for detecting prostate cancer in a
CC subject comprise: contacting the sample with an antibody that
CC specifically binds a SV-NGEP polypeptide and detecting the formation of
CC an immune complex; or detecting an increase in expression of SV-NGEP
CC polypeptide or mRNA. Antibodies to an SV-NGEP polypeptide can be used to
CC detect metastatic prostate cancer cells at locations other than the
CC prostate. A claimed method for producing an immune response against a
CC cell expressing SV-NGEP, for example in a subject with prostate cancer,
CC comprises administering the polypeptide, or a polynucleotide encoding it,
CC to produce an immune response that decreases growth of the prostate
CC cancer. A claimed method for inhibiting the growth of a malignant cell
CC that expresses SV-NGEP comprises culturing cytotoxic T lymphocytes (CTLs)
CC with SV-NGEP to produce activated CTLs that recognise an NGEP expressing
CC cell, and contacting the malignant cell with the activated CTLs.
CC Alternatively, growth of a malignant cell is inhibited by contact with an
CC antibody that specifically binds an SV-NGEP polypeptide, where the
CC antibody is linked to an effector molecule (chemotherapeutic agent or
CC toxin) that inhibits growth of the malignant cell. This may be performed
CC in vivo. Kits for detecting an SV-NGEP polypeptide or polynucleotide in a
CC sample are also claimed.
CC
CC Revised record issued on 15-JUN-2007 : Enhanced with precomputed
CC information from BOND.
XX
SQ Sequence 933 AA;

Query Match 100.0%; Score 44; DB 8; Length 933;
Best Local Similarity 100.0%; Pred. No. 3.2;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 KIYVSLAHV 9
|||||||||

```
Db        562 KIYVSLAHV 570


RESULT 6
AEL84788
ID   AEL84788 standard; protein; 933 AA.
XX
AC   AEL84788;
XX
DT   18-OCT-2007  (revised)
DT   15-JUN-2007  (revised)
DT   28-DEC-2006  (first entry)
XX
DE   Tumor marker gene NGEP SEQ ID NO 155.
XX
KW   cytostatic; diagnosis; prognosis; tumor marker; gene expression;
KW   drug screening; cancer; neoplasm; NGEP; BOND_PC; NGEP long variant;
KW   GO5886.
XX
OS   Homo sapiens.
XX
PN   WO2006110593-A2.
XX
PD   19-OCT-2006.
XX
PF   07-APR-2006; 2006WO-US013172.
XX
PR   07-APR-2005; 2005US-0669342P.
PR   11-OCT-2005; 2005US-0725982P.
XX
PA   (MACR-) MACROGENICS INC.
XX
PI   Von Haller PD,  Schummer M,  Meyer DW,  Schubert LA,  Tjoelker LW;
XX
DR   WPI; 2006-814687/82.
DR   N-PSDB; AEL84787.
DR   REFSEQ; NP_001001891.
DR   PC:NCBI; gi48093524.
XX
PT   Detecting or diagnosing cancer in a subject comprises determining
PT   expression of at least one gene, and comparing level of expression to a
PT   control sample from a normal subject, where increased expression level
PT   indicates cancer.
XX
PS   Claim 8; SEQ ID NO 155; 583pp; English.
XX
CC   The invention describes a method of detecting or diagnosing cancer in a
CC   subject comprising determining the expression level of at least one gene,
CC   and comparing the level of expression to a corresponding control sample
```

```
CC   from a normal subject, where cancer is detected or diagnosed if there is
CC   an increase in the expression level of the gene relative to the
CC   expression in the control sample. Also described are: identifying a
CC   compound to be tested for its ability to prevent, treat, manage, or
CC   ameliorate cancer or its symptom; a compound identified by the method;
CC   treating cancer in a patient; treating a cancer in a subject that is
CC   fully or partially refractory to a first treatment in a patient; and a
CC   pharmaceutical composition comprising an amount of an antibody selected
CC   from anti-SLC12A2, anti-FLJ23375, anti-GRM5, anti-TAS2R1, anti-NRXN2,
CC   anti-C14orf160, anti-MGC 15668, anti-MGC33486, anti-TMEM16F, anti-FAT,
CC   anti-KIAA0195, anti-LRFN, anti-NFASC, anti-BAT2D1, anti-MGC2963, anti-
CC   KIAA0685, anti-EDG3, anti-GGTL3, anti-PLVAP, anti-FLJ31528, anti-
CC   FLJ90709, anti-VEZATIN, anti-TMPRSS9, anti-ATP13A5, anti-PKHD1L1, anti-
CC   C2orf18, anti-ANKRD22, anti-FAM62B, anti-LOC57168, anti-CDKAL1, anti-
CC   SLC39A3v1, anti-SLC39A3v2, anti-BAT5, anti-TM9SF4, anti-DC2, anti-VAPB,
CC   anti-XTP3TPB, anti-TACSTD2, anti-FNDC3A, anti-GK001, anti-OCIAD2, anti-
CC   PR01855, anti-C20orf3, anti-SDFR1, anti-FLJ20481, anti-LENG4, anti-
CC   FLJ12443, anti-ARP5 Long, anti-ARP5 Short, anti-TMD0645, anti-NGEP, anti-
CC   IL1RAP1, anti-PLXNB1, anti-ATP2B2, anti~FLJ11848, anti-ENTPD2, anti-
CC   PPM1H, anti-KRTKAP3, anti-KCNC3, anti-TM9SF1, anti-ULBP1, anti-C19orf26,
CC   anti-KIAA830, anti-KIAA1244, anti-KIAA1797, anti-MGC26856, anti-NETO2,
CC   anti-SUSD2, anti-FOLR2, anti-EMR2, ENTPD1, anti-ATP10B, anti-PTK7, anti-
CC   FLJ14681, anti-C20orf22, anti-FLJ14281, anti-FAM8A1, anti-TMED7, anti-
CC   C20orf108, anti-ATAD1, anti-GPR154, anti-C14orf27, anti-OSAP, anti-
CC   FAD104, anti-FLJ90492, anti-SLC27A3, anti-RON, anti-ATP13A1, anti-
CC   DKFZP564D166, anti-ESSPL, anti-EXTL3, anti-KAI1, anti-KIAA0960, anti-
CC   MTRNL, anti-SLC27A1, anti-GRIA, anti-OR4M1, anti-KIAA1679, or anti-UPK-1b
CC   antibody, and a pharmaceutical carrier. The methods are useful for
CC   detecting, diagnosing, and treating cancer, e.g. colon, lung, ovary,
CC   prostate, pancreas, or bladder cancer. This is the amino acid sequence of
CC   NGEP, altered levels of expression are useful in the diagnosis or
CC   prognosis of cancer.
CC
CC   Revised record issued on 18-OCT-2007 : Enhanced with precomputed
CC   information from BOND.
XX
SQ   Sequence 933 AA;

  Query Match             100.0%;  Score 44;  DB 11;  Length 933;
  Best Local Similarity   100.0%;  Pred. No. 3.2;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 KIYVSLAHV 9
              |||||||||
Db        562 KIYVSLAHV 570


RESULT 7
ABG29580
```

ID ABG29580 standard; protein; 185 AA.
XX
AC ABG29580;
XX
DT 18-FEB-2002 (first entry)
XX
DE Novel human diagnostic protein #29571.
XX
KW Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW food supplement; medical imaging; diagnostic; genetic disorder.
XX
OS Homo sapiens.
XX
PN WO200175067-A2.
XX
PD 11-OCT-2001.
XX
PF 30-MAR-2001; 2001WO-US008631.
XX
PR 31-MAR-2000; 2000US-00540217.
PR 23-AUG-2000; 2000US-00649167.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Drmanac RT, Liu C, Tang YT;
XX
DR WPI; 2001-639362/73.
DR N-PSDB; AAS93767.
XX
PT New isolated polynucleotide and encoded polypeptides, useful in
PT diagnostics, forensics, gene mapping, identification of mutations
PT responsible for genetic disorders or other traits and to assess
PT biodiversity.
XX
PS Claim 20; SEQ ID NO 59939; 103pp; English.
XX
CC The invention relates to isolated polynucleotide (I) and polypeptide (II)
CC sequences. (I) is useful as hybridisation probes, polymerase chain
CC reaction (PCR) primers, oligomers, and for chromosome and gene mapping,
CC and in recombinant production of (II). The polynucleotides are also used
CC in diagnostics as expressed sequence tags for identifying expressed
CC genes. (I) is useful in gene therapy techniques to restore normal
CC activity of (II) or to treat disease states involving (II). (II) is
CC useful for generating antibodies against it, detecting or quantitating a
CC polypeptide in tissue, as molecular weight markers and as a food
CC supplement. (II) and its binding partners are useful in medical imaging
CC of sites expressing (II). (I) and (II) are useful for treating disorders
CC involving aberrant protein expression or biological activity. The
CC polypeptide and polynucleotide sequences have applications in

```
CC   diagnostics, forensics, gene mapping, identification of mutations
CC   responsible for genetic disorders or other traits to assess biodiversity
CC   and to produce other types of data and products dependent on DNA and
CC   amino acid sequences. ABG00010-ABG30377 represent novel human diagnostic
CC   amino acid sequences of the invention. Note: The sequence data for this
CC   patent did not appear in the printed specification, but was obtained in
CC   electronic format directly from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 185 AA;

  Query Match             79.5%;  Score 35;  DB 4;  Length 185;
  Best Local Similarity   55.6%;  Pred. No. 44;
  Matches    5;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 KIYVSLAHV 9
              ::||||:|:
Db         50 RLYVSLSHI 58


RESULT 8
AFQ14910
ID   AFQ14910 standard; protein; 76 AA.
XX
AC   AFQ14910;
XX
DT   18-OCT-2007  (first entry)
XX
DE   Glycine max protein SEQ ID NO:206087.
XX
KW   plant; cold tolerance; heat tolerance; drought resistance;
KW   herbicide resistance; pathogen resistance; pesticide resistance;
KW   disease-resistance; crop improvement; insect resistance;
KW   nitrogen fixation; plant growth regulation; plant disease;
KW   stress tolerance; seed oil; transgenic.
XX
OS   Glycine max.
XX
PN   US2004031072-A1.
XX
PD   12-FEB-2004.
XX
PF   28-APR-2003; 2003US-00424599.
XX
PR   06-MAY-1999;   99US-00304517.
PR   05-NOV-2001; 2001US-00985678.
XX
PA   (LROS/) LA ROSA T J.
PA   (ZHOU/) ZHOU Y.
```

```
PA   (KOVA/) KOVALIC D K.
PA   (CAOY/) CAO Y.
XX
PI   La Rosa TJ,  Zhou Y,  Kovalic DK,  Cao Y;
XX
DR   WPI; 2004-168999/16.
XX
PT   New recombinant DNA construct, useful in producing plants with desired
PT   properties, e.g. increased cold, heat or drought tolerance or tolerance
PT   to herbicides, extreme osmotic conditions or pathogens and improved plant
PT   growth and development.
XX
PS   Claim 2; SEQ ID NO 206087; 15pp; English.
XX
CC   The invention relates to a recombinant DNA construct, polynucleotides or
CC   polypeptides which are useful in improving plant cold, heat or drought
CC   tolerance or tolerance to herbicides, extreme osmotic conditions,
CC   pathogens or pests, in improving yield by modification of photosynthesis
CC   or of carbohydrate, nitrogen or phosphorus use and/or uptake, in
CC   manipulating growth rate in plant cells by modification of the cell cycle
CC   pathway, in providing increased resistance to plant disease and improved
CC   plant growth and development under at least one stress condition, in
CC   producing galactomannan, plant growth regulators and lignin, in
CC   increasing the rate of homologous recombination in plants, in modifying
CC   seed oil yield and/or content and seed protein yield and/or content and
CC   in encoding a plant transcription factor. The present sequence represents
CC   a Glycine max protein of the invention. Note: This sequence is not shown
CC   in the specification but was obtained in electronic format directly from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 76 AA;

  Query Match             77.3%;  Score 34;  DB 9;  Length 76;
  Best Local Similarity   75.0%;  Pred. No. 26;
  Matches    6;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 KIYVSLAH 8
              |:|||| |
Db         10 KLYVSLVH 17


RESULT 9
AAG06226
ID   AAG06226 standard; protein; 251 AA.
XX
AC   AAG06226;
XX
DT   17-OCT-2000  (first entry)
XX
```

DE Arabidopsis thaliana protein fragment SEQ ID NO: 2922.
XX
KW Protein identification; signal transduction pathway; metabolic pathway;
KW hybridisation assay; genetic mapping; gene expression control; promoter;
KW termination sequence.
XX
OS Arabidopsis thaliana.
XX
PN EP1033405-A2.
XX
PD 06-SEP-2000.
XX
PF 25-FEB-2000; 2000EP-00301439.
XX
PR 25-FEB-1999; 99US-0121825P.
PR 05-MAR-1999; 99US-0123180P.
PR 09-MAR-1999; 99US-0123548P.
PR 23-MAR-1999; 99US-0125788P.
PR 25-MAR-1999; 99US-0126264P.
PR 29-MAR-1999; 99US-0126785P.
PR 01-APR-1999; 99US-0127462P.
PR 06-APR-1999; 99US-0128234P.
PR 08-APR-1999; 99US-0128714P.
PR 16-APR-1999; 99US-0129845P.
PR 19-APR-1999; 99US-0130077P.
PR 21-APR-1999; 99US-0130449P.
PR 23-APR-1999; 99US-0130510P.
PR 23-APR-1999; 99US-0130891P.
PR 28-APR-1999; 99US-0131449P.
PR 30-APR-1999; 99US-0132048P.
PR 30-APR-1999; 99US-0132407P.
PR 04-MAY-1999; 99US-0132484P.
PR 05-MAY-1999; 99US-0132485P.
PR 06-MAY-1999; 99US-0132486P.
PR 06-MAY-1999; 99US-0132487P.
PR 07-MAY-1999; 99US-0132863P.
PR 11-MAY-1999; 99US-0134256P.
PR 14-MAY-1999; 99US-0134218P.
PR 14-MAY-1999; 99US-0134219P.
PR 14-MAY-1999; 99US-0134221P.
PR 14-MAY-1999; 99US-0134370P.
PR 18-MAY-1999; 99US-0134768P.
PR 19-MAY-1999; 99US-0134941P.
PR 20-MAY-1999; 99US-0135124P.
PR 21-MAY-1999; 99US-0135353P.
PR 24-MAY-1999; 99US-0135629P.
PR 25-MAY-1999; 99US-0136021P.
PR 27-MAY-1999; 99US-0136392P.
PR 28-MAY-1999; 99US-0136782P.

PR 01-JUN-1999; 99US-0137222P.
PR 03-JUN-1999; 99US-0137528P.
PR 04-JUN-1999; 99US-0137502P.
PR 07-JUN-1999; 99US-0137724P.
PR 08-JUN-1999; 99US-0138094P.
PR 10-JUN-1999; 99US-0138540P.
PR 10-JUN-1999; 99US-0138847P.
PR 14-JUN-1999; 99US-0139119P.
PR 16-JUN-1999; 99US-0139452P.
PR 16-JUN-1999; 99US-0139453P.
PR 17-JUN-1999; 99US-0139492P.
PR 18-JUN-1999; 99US-0139454P.
PR 18-JUN-1999; 99US-0139455P.
PR 18-JUN-1999; 99US-0139456P.
PR 18-JUN-1999; 99US-0139457P.
PR 18-JUN-1999; 99US-0139458P.
PR 18-JUN-1999; 99US-0139459P.
PR 18-JUN-1999; 99US-0139460P.
PR 18-JUN-1999; 99US-0139461P.
PR 18-JUN-1999; 99US-0139462P.
PR 18-JUN-1999; 99US-0139463P.
PR 18-JUN-1999; 99US-0139750P.
PR 18-JUN-1999; 99US-0139763P.
PR 21-JUN-1999; 99US-0139817P.
PR 22-JUN-1999; 99US-0139899P.
PR 23-JUN-1999; 99US-0140353P.
PR 23-JUN-1999; 99US-0140354P.
PR 24-JUN-1999; 99US-0140695P.
PR 28-JUN-1999; 99US-0140823P.
PR 29-JUN-1999; 99US-0140991P.
PR 30-JUN-1999; 99US-0141287P.
PR 01-JUL-1999; 99US-0141842P.
PR 01-JUL-1999; 99US-0142154P.
PR 02-JUL-1999; 99US-0142055P.
PR 06-JUL-1999; 99US-0142390P.
PR 08-JUL-1999; 99US-0142803P.
PR 09-JUL-1999; 99US-0142920P.
PR 12-JUL-1999; 99US-0142977P.
PR 13-JUL-1999; 99US-0143542P.
PR 14-JUL-1999; 99US-0143624P.
PR 15-JUL-1999; 99US-0144005P.
PR 16-JUL-1999; 99US-0144085P.
PR 16-JUL-1999; 99US-0144086P.
PR 19-JUL-1999; 99US-0144325P.
PR 19-JUL-1999; 99US-0144331P.
PR 19-JUL-1999; 99US-0144332P.
PR 19-JUL-1999; 99US-0144333P.
PR 19-JUL-1999; 99US-0144334P.
PR 19-JUL-1999; 99US-0144335P.

PR	20-JUL-1999;	99US-0144352P.
PR	20-JUL-1999;	99US-0144632P.
PR	20-JUL-1999;	99US-0144884P.
PR	21-JUL-1999;	99US-0144814P.
PR	21-JUL-1999;	99US-0145086P.
PR	21-JUL-1999;	99US-0145088P.
PR	22-JUL-1999;	99US-0145085P.
PR	22-JUL-1999;	99US-0145087P.
PR	22-JUL-1999;	99US-0145089P.
PR	22-JUL-1999;	99US-0145192P.
PR	23-JUL-1999;	99US-0145145P.
PR	23-JUL-1999;	99US-0145218P.
PR	23-JUL-1999;	99US-0145224P.
PR	26-JUL-1999;	99US-0145276P.
PR	27-JUL-1999;	99US-0145913P.
PR	27-JUL-1999;	99US-0145918P.
PR	27-JUL-1999;	99US-0145919P.
PR	28-JUL-1999;	99US-0145951P.
PR	02-AUG-1999;	99US-0146386P.
PR	02-AUG-1999;	99US-0146388P.
PR	02-AUG-1999;	99US-0146389P.
PR	03-AUG-1999;	99US-0147038P.
PR	04-AUG-1999;	99US-0147204P.
PR	04-AUG-1999;	99US-0147302P.
PR	05-AUG-1999;	99US-0147192P.
PR	05-AUG-1999;	99US-0147260P.
PR	06-AUG-1999;	99US-0147303P.
PR	06-AUG-1999;	99US-0147416P.
PR	09-AUG-1999;	99US-0147493P.
PR	09-AUG-1999;	99US-0147935P.
PR	10-AUG-1999;	99US-0148171P.
PR	11-AUG-1999;	99US-0148319P.
PR	12-AUG-1999;	99US-0148341P.
PR	13-AUG-1999;	99US-0148565P.
PR	13-AUG-1999;	99US-0148684P.
PR	16-AUG-1999;	99US-0149368P.
PR	17-AUG-1999;	99US-0149175P.
PR	18-AUG-1999;	99US-0149426P.
PR	20-AUG-1999;	99US-0149722P.
PR	20-AUG-1999;	99US-0149723P.
PR	20-AUG-1999;	99US-0149929P.
PR	23-AUG-1999;	99US-0149902P.
PR	23-AUG-1999;	99US-0149930P.
PR	25-AUG-1999;	99US-0150566P.
PR	26-AUG-1999;	99US-0150884P.
PR	27-AUG-1999;	99US-0151065P.
PR	27-AUG-1999;	99US-0151066P.
PR	27-AUG-1999;	99US-0151080P.
PR	30-AUG-1999;	99US-0151303P.

PR 31-AUG-1999; 99US-0151438P.
PR 01-SEP-1999; 99US-0151930P.
PR 07-SEP-1999; 99US-0152363P.
PR 10-SEP-1999; 99US-0153070P.
PR 13-SEP-1999; 99US-0153758P.
PR 15-SEP-1999; 99US-0154018P.
PR 16-SEP-1999; 99US-0154039P.
PR 20-SEP-1999; 99US-0154779P.
PR 22-SEP-1999; 99US-0155139P.
PR 23-SEP-1999; 99US-0155486P.
PR 24-SEP-1999; 99US-0155659P.
PR 28-SEP-1999; 99US-0156458P.
PR 29-SEP-1999; 99US-0156596P.
PR 04-OCT-1999; 99US-0157117P.
PR 05-OCT-1999; 99US-0157753P.
PR 06-OCT-1999; 99US-0157865P.
PR 07-OCT-1999; 99US-0158029P.
PR 08-OCT-1999; 99US-0158232P.
PR 12-OCT-1999; 99US-0158369P.
PR 13-OCT-1999; 99US-0159293P.
PR 13-OCT-1999; 99US-0159294P.
PR 13-OCT-1999; 99US-0159295P.
PR 14-OCT-1999; 99US-0159329P.
PR 14-OCT-1999; 99US-0159330P.
PR 14-OCT-1999; 99US-0159331P.
PR 14-OCT-1999; 99US-0159637P.
PR 14-OCT-1999; 99US-0159638P.
PR 18-OCT-1999; 99US-0159584P.
PR 21-OCT-1999; 99US-0160741P.
PR 21-OCT-1999; 99US-0160767P.
PR 21-OCT-1999; 99US-0160768P.
PR 21-OCT-1999; 99US-0160770P.
PR 21-OCT-1999; 99US-0160814P.
PR 21-OCT-1999; 99US-0160815P.
PR 22-OCT-1999; 99US-0160980P.
PR 22-OCT-1999; 99US-0160981P.
PR 22-OCT-1999; 99US-0160989P.
PR 25-OCT-1999; 99US-0161404P.
PR 25-OCT-1999; 99US-0161405P.
PR 25-OCT-1999; 99US-0161406P.
PR 26-OCT-1999; 99US-0161359P.
PR 26-OCT-1999; 99US-0161360P.
PR 26-OCT-1999; 99US-0161361P.
PR 28-OCT-1999; 99US-0161920P.
PR 28-OCT-1999; 99US-0161992P.
PR 28-OCT-1999; 99US-0161993P.
PR 29-OCT-1999; 99US-0162142P.

Query Match 77.3%; Score 34; DB 3; Length 251;

```
  Best Local Similarity   66.7%;  Pred. No. 1e+02;
  Matches    6;  Conservative    2;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 KIYVSLAHV 9
              ::|||| ||
Db        207 RVYVSLFHV 215


RESULT 10
AAG06225
ID   AAG06225 standard; protein; 306 AA.
XX
AC   AAG06225;
XX
DT   17-OCT-2000  (first entry)
XX
DE   Arabidopsis thaliana protein fragment SEQ ID NO: 2921.
XX
KW   Protein identification; signal transduction pathway; metabolic pathway;
KW   hybridisation assay; genetic mapping; gene expression control; promoter;
KW   termination sequence.
XX
OS   Arabidopsis thaliana.
XX
PN   EP1033405-A2.
XX
PD   06-SEP-2000.
XX
PF   25-FEB-2000; 2000EP-00301439.
XX
PR   25-FEB-1999;   99US-0121825P.
PR   05-MAR-1999;   99US-0123180P.
PR   09-MAR-1999;   99US-0123548P.
PR   23-MAR-1999;   99US-0125788P.
PR   25-MAR-1999;   99US-0126264P.
PR   29-MAR-1999;   99US-0126785P.
PR   01-APR-1999;   99US-0127462P.
PR   06-APR-1999;   99US-0128234P.
PR   08-APR-1999;   99US-0128714P.
PR   16-APR-1999;   99US-0129845P.
PR   19-APR-1999;   99US-0130077P.
PR   21-APR-1999;   99US-0130449P.
PR   23-APR-1999;   99US-0130510P.
PR   23-APR-1999;   99US-0130891P.
PR   28-APR-1999;   99US-0131449P.
PR   30-APR-1999;   99US-0132048P.
PR   30-APR-1999;   99US-0132407P.
PR   04-MAY-1999;   99US-0132484P.
PR   05-MAY-1999;   99US-0132485P.
```

PR	06-MAY-1999;	99US-0132486P.
PR	06-MAY-1999;	99US-0132487P.
PR	07-MAY-1999;	99US-0132863P.
PR	11-MAY-1999;	99US-0134256P.
PR	14-MAY-1999;	99US-0134218P.
PR	14-MAY-1999;	99US-0134219P.
PR	14-MAY-1999;	99US-0134221P.
PR	14-MAY-1999;	99US-0134370P.
PR	18-MAY-1999;	99US-0134768P.
PR	19-MAY-1999;	99US-0134941P.
PR	20-MAY-1999;	99US-0135124P.
PR	21-MAY-1999;	99US-0135353P.
PR	24-MAY-1999;	99US-0135629P.
PR	25-MAY-1999;	99US-0136021P.
PR	27-MAY-1999;	99US-0136392P.
PR	28-MAY-1999;	99US-0136782P.
PR	01-JUN-1999;	99US-0137222P.
PR	03-JUN-1999;	99US-0137528P.
PR	04-JUN-1999;	99US-0137502P.
PR	07-JUN-1999;	99US-0137724P.
PR	08-JUN-1999;	99US-0138094P.
PR	10-JUN-1999;	99US-0138540P.
PR	10-JUN-1999;	99US-0138847P.
PR	14-JUN-1999;	99US-0139119P.
PR	16-JUN-1999;	99US-0139452P.
PR	16-JUN-1999;	99US-0139453P.
PR	17-JUN-1999;	99US-0139492P.
PR	18-JUN-1999;	99US-0139454P.
PR	18-JUN-1999;	99US-0139455P.
PR	18-JUN-1999;	99US-0139456P.
PR	18-JUN-1999;	99US-0139457P.
PR	18-JUN-1999;	99US-0139458P.
PR	18-JUN-1999;	99US-0139459P.
PR	18-JUN-1999;	99US-0139460P.
PR	18-JUN-1999;	99US-0139461P.
PR	18-JUN-1999;	99US-0139462P.
PR	18-JUN-1999;	99US-0139463P.
PR	18-JUN-1999;	99US-0139750P.
PR	18-JUN-1999;	99US-0139763P.
PR	21-JUN-1999;	99US-0139817P.
PR	22-JUN-1999;	99US-0139899P.
PR	23-JUN-1999;	99US-0140353P.
PR	23-JUN-1999;	99US-0140354P.
PR	24-JUN-1999;	99US-0140695P.
PR	28-JUN-1999;	99US-0140823P.
PR	29-JUN-1999;	99US-0140991P.
PR	30-JUN-1999;	99US-0141287P.
PR	01-JUL-1999;	99US-0141842P.
PR	01-JUL-1999;	99US-0142154P.

PR	02-JUL-1999;	99US-0142055P.
PR	06-JUL-1999;	99US-0142390P.
PR	08-JUL-1999;	99US-0142803P.
PR	09-JUL-1999;	99US-0142920P.
PR	12-JUL-1999;	99US-0142977P.
PR	13-JUL-1999;	99US-0143542P.
PR	14-JUL-1999;	99US-0143624P.
PR	15-JUL-1999;	99US-0144005P.
PR	16-JUL-1999;	99US-0144085P.
PR	16-JUL-1999;	99US-0144086P.
PR	19-JUL-1999;	99US-0144325P.
PR	19-JUL-1999;	99US-0144331P.
PR	19-JUL-1999;	99US-0144332P.
PR	19-JUL-1999;	99US-0144333P.
PR	19-JUL-1999;	99US-0144334P.
PR	19-JUL-1999;	99US-0144335P.
PR	20-JUL-1999;	99US-0144352P.
PR	20-JUL-1999;	99US-0144632P.
PR	20-JUL-1999;	99US-0144884P.
PR	21-JUL-1999;	99US-0144814P.
PR	21-JUL-1999;	99US-0145086P.
PR	21-JUL-1999;	99US-0145088P.
PR	22-JUL-1999;	99US-0145085P.
PR	22-JUL-1999;	99US-0145087P.
PR	22-JUL-1999;	99US-0145089P.
PR	22-JUL-1999;	99US-0145192P.
PR	23-JUL-1999;	99US-0145145P.
PR	23-JUL-1999;	99US-0145218P.
PR	23-JUL-1999;	99US-0145224P.
PR	26-JUL-1999;	99US-0145276P.
PR	27-JUL-1999;	99US-0145913P.
PR	27-JUL-1999;	99US-0145918P.
PR	27-JUL-1999;	99US-0145919P.
PR	28-JUL-1999;	99US-0145951P.
PR	02-AUG-1999;	99US-0146386P.
PR	02-AUG-1999;	99US-0146388P.
PR	02-AUG-1999;	99US-0146389P.
PR	03-AUG-1999;	99US-0147038P.
PR	04-AUG-1999;	99US-0147204P.
PR	04-AUG-1999;	99US-0147302P.
PR	05-AUG-1999;	99US-0147192P.
PR	05-AUG-1999;	99US-0147260P.
PR	06-AUG-1999;	99US-0147303P.
PR	06-AUG-1999;	99US-0147416P.
PR	09-AUG-1999;	99US-0147493P.
PR	09-AUG-1999;	99US-0147935P.
PR	10-AUG-1999;	99US-0148171P.
PR	11-AUG-1999;	99US-0148319P.
PR	12-AUG-1999;	99US-0148341P.

PR	13-AUG-1999;	99US-0148565P.
PR	13-AUG-1999;	99US-0148684P.
PR	16-AUG-1999;	99US-0149368P.
PR	17-AUG-1999;	99US-0149175P.
PR	18-AUG-1999;	99US-0149426P.
PR	20-AUG-1999;	99US-0149722P.
PR	20-AUG-1999;	99US-0149723P.
PR	20-AUG-1999;	99US-0149929P.
PR	23-AUG-1999;	99US-0149902P.
PR	23-AUG-1999;	99US-0149930P.
PR	25-AUG-1999;	99US-0150566P.
PR	26-AUG-1999;	99US-0150884P.
PR	27-AUG-1999;	99US-0151065P.
PR	27-AUG-1999;	99US-0151066P.
PR	27-AUG-1999;	99US-0151080P.
PR	30-AUG-1999;	99US-0151303P.
PR	31-AUG-1999;	99US-0151438P.
PR	01-SEP-1999;	99US-0151930P.
PR	07-SEP-1999;	99US-0152363P.
PR	10-SEP-1999;	99US-0153070P.
PR	13-SEP-1999;	99US-0153758P.
PR	15-SEP-1999;	99US-0154018P.
PR	16-SEP-1999;	99US-0154039P.
PR	20-SEP-1999;	99US-0154779P.
PR	22-SEP-1999;	99US-0155139P.
PR	23-SEP-1999;	99US-0155486P.
PR	24-SEP-1999;	99US-0155659P.
PR	28-SEP-1999;	99US-0156458P.
PR	29-SEP-1999;	99US-0156596P.
PR	04-OCT-1999;	99US-0157117P.
PR	05-OCT-1999;	99US-0157753P.
PR	06-OCT-1999;	99US-0157865P.
PR	07-OCT-1999;	99US-0158029P.
PR	08-OCT-1999;	99US-0158232P.
PR	12-OCT-1999;	99US-0158369P.
PR	13-OCT-1999;	99US-0159293P.
PR	13-OCT-1999;	99US-0159294P.
PR	13-OCT-1999;	99US-0159295P.
PR	14-OCT-1999;	99US-0159329P.
PR	14-OCT-1999;	99US-0159330P.
PR	14-OCT-1999;	99US-0159331P.
PR	14-OCT-1999;	99US-0159637P.
PR	14-OCT-1999;	99US-0159638P.
PR	18-OCT-1999;	99US-0159584P.
PR	21-OCT-1999;	99US-0160741P.
PR	21-OCT-1999;	99US-0160767P.
PR	21-OCT-1999;	99US-0160768P.
PR	21-OCT-1999;	99US-0160770P.
PR	21-OCT-1999;	99US-0160814P.

```
PR   21-OCT-1999;   99US-0160815P.
PR   22-OCT-1999;   99US-0160980P.
PR   22-OCT-1999;   99US-0160981P.
PR   22-OCT-1999;   99US-0160989P.
PR   25-OCT-1999;   99US-0161404P.
PR   25-OCT-1999;   99US-0161405P.
PR   25-OCT-1999;   99US-0161406P.
PR   26-OCT-1999;   99US-0161359P.
PR   26-OCT-1999;   99US-0161360P.
PR   26-OCT-1999;   99US-0161361P.
PR   28-OCT-1999;   99US-0161920P.
PR   28-OCT-1999;   99US-0161992P.
PR   28-OCT-1999;   99US-0161993P.
PR   29-OCT-1999;   99US-0162142P.

  Query Match             77.3%;  Score 34;  DB 3;  Length 306;
  Best Local Similarity   66.7%;  Pred. No. 1.3e+02;
  Matches    6;  Conservative    2;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 KIYVSLAHV 9
              ::|||| ||
Db        262 RVYVSLFHV 270


RESULT 11
AAG06224
ID   AAG06224 standard; protein; 334 AA.
XX
AC   AAG06224;
XX
DT   17-OCT-2000  (first entry)
XX
DE   Arabidopsis thaliana protein fragment SEQ ID NO: 2920.
XX
KW   Protein identification; signal transduction pathway; metabolic pathway;
KW   hybridisation assay; genetic mapping; gene expression control; promoter;
KW   termination sequence.
XX
OS   Arabidopsis thaliana.
XX
PN   EP1033405-A2.
XX
PD   06-SEP-2000.
XX
PF   25-FEB-2000; 2000EP-00301439.
XX
PR   25-FEB-1999;   99US-0121825P.
PR   05-MAR-1999;   99US-0123180P.
PR   09-MAR-1999;   99US-0123548P.
```

PR 23-MAR-1999; 99US-0125788P.
PR 25-MAR-1999; 99US-0126264P.
PR 29-MAR-1999; 99US-0126785P.
PR 01-APR-1999; 99US-0127462P.
PR 06-APR-1999; 99US-0128234P.
PR 08-APR-1999; 99US-0128714P.
PR 16-APR-1999; 99US-0129845P.
PR 19-APR-1999; 99US-0130077P.
PR 21-APR-1999; 99US-0130449P.
PR 23-APR-1999; 99US-0130510P.
PR 23-APR-1999; 99US-0130891P.
PR 28-APR-1999; 99US-0131449P.
PR 30-APR-1999; 99US-0132048P.
PR 30-APR-1999; 99US-0132407P.
PR 04-MAY-1999; 99US-0132484P.
PR 05-MAY-1999; 99US-0132485P.
PR 06-MAY-1999; 99US-0132486P.
PR 06-MAY-1999; 99US-0132487P.
PR 07-MAY-1999; 99US-0132863P.
PR 11-MAY-1999; 99US-0134256P.
PR 14-MAY-1999; 99US-0134218P.
PR 14-MAY-1999; 99US-0134219P.
PR 14-MAY-1999; 99US-0134221P.
PR 14-MAY-1999; 99US-0134370P.
PR 18-MAY-1999; 99US-0134768P.
PR 19-MAY-1999; 99US-0134941P.
PR 20-MAY-1999; 99US-0135124P.
PR 21-MAY-1999; 99US-0135353P.
PR 24-MAY-1999; 99US-0135629P.
PR 25-MAY-1999; 99US-0136021P.
PR 27-MAY-1999; 99US-0136392P.
PR 28-MAY-1999; 99US-0136782P.
PR 01-JUN-1999; 99US-0137222P.
PR 03-JUN-1999; 99US-0137528P.
PR 04-JUN-1999; 99US-0137502P.
PR 07-JUN-1999; 99US-0137724P.
PR 08-JUN-1999; 99US-0138094P.
PR 10-JUN-1999; 99US-0138540P.
PR 10-JUN-1999; 99US-0138847P.
PR 14-JUN-1999; 99US-0139119P.
PR 16-JUN-1999; 99US-0139452P.
PR 16-JUN-1999; 99US-0139453P.
PR 17-JUN-1999; 99US-0139492P.
PR 18-JUN-1999; 99US-0139454P.
PR 18-JUN-1999; 99US-0139455P.
PR 18-JUN-1999; 99US-0139456P.
PR 18-JUN-1999; 99US-0139457P.
PR 18-JUN-1999; 99US-0139458P.
PR 18-JUN-1999; 99US-0139459P.

PR	18-JUN-1999;	99US-0139460P.
PR	18-JUN-1999;	99US-0139461P.
PR	18-JUN-1999;	99US-0139462P.
PR	18-JUN-1999;	99US-0139463P.
PR	18-JUN-1999;	99US-0139750P.
PR	18-JUN-1999;	99US-0139763P.
PR	21-JUN-1999;	99US-0139817P.
PR	22-JUN-1999;	99US-0139899P.
PR	23-JUN-1999;	99US-0140353P.
PR	23-JUN-1999;	99US-0140354P.
PR	24-JUN-1999;	99US-0140695P.
PR	28-JUN-1999;	99US-0140823P.
PR	29-JUN-1999;	99US-0140991P.
PR	30-JUN-1999;	99US-0141287P.
PR	01-JUL-1999;	99US-0141842P.
PR	01-JUL-1999;	99US-0142154P.
PR	02-JUL-1999;	99US-0142055P.
PR	06-JUL-1999;	99US-0142390P.
PR	08-JUL-1999;	99US-0142803P.
PR	09-JUL-1999;	99US-0142920P.
PR	12-JUL-1999;	99US-0142977P.
PR	13-JUL-1999;	99US-0143542P.
PR	14-JUL-1999;	99US-0143624P.
PR	15-JUL-1999;	99US-0144005P.
PR	16-JUL-1999;	99US-0144085P.
PR	16-JUL-1999;	99US-0144086P.
PR	19-JUL-1999;	99US-0144325P.
PR	19-JUL-1999;	99US-0144331P.
PR	19-JUL-1999;	99US-0144332P.
PR	19-JUL-1999;	99US-0144333P.
PR	19-JUL-1999;	99US-0144334P.
PR	19-JUL-1999;	99US-0144335P.
PR	20-JUL-1999;	99US-0144352P.
PR	20-JUL-1999;	99US-0144632P.
PR	20-JUL-1999;	99US-0144884P.
PR	21-JUL-1999;	99US-0144814P.
PR	21-JUL-1999;	99US-0145086P.
PR	21-JUL-1999;	99US-0145088P.
PR	22-JUL-1999;	99US-0145085P.
PR	22-JUL-1999;	99US-0145087P.
PR	22-JUL-1999;	99US-0145089P.
PR	22-JUL-1999;	99US-0145192P.
PR	23-JUL-1999;	99US-0145145P.
PR	23-JUL-1999;	99US-0145218P.
PR	23-JUL-1999;	99US-0145224P.
PR	26-JUL-1999;	99US-0145276P.
PR	27-JUL-1999;	99US-0145913P.
PR	27-JUL-1999;	99US-0145918P.
PR	27-JUL-1999;	99US-0145919P.

PR 28-JUL-1999; 99US-0145951P.
PR 02-AUG-1999; 99US-0146386P.
PR 02-AUG-1999; 99US-0146388P.
PR 02-AUG-1999; 99US-0146389P.
PR 03-AUG-1999; 99US-0147038P.
PR 04-AUG-1999; 99US-0147204P.
PR 04-AUG-1999; 99US-0147302P.
PR 05-AUG-1999; 99US-0147192P.
PR 05-AUG-1999; 99US-0147260P.
PR 06-AUG-1999; 99US-0147303P.
PR 06-AUG-1999; 99US-0147416P.
PR 09-AUG-1999; 99US-0147493P.
PR 09-AUG-1999; 99US-0147935P.
PR 10-AUG-1999; 99US-0148171P.
PR 11-AUG-1999; 99US-0148319P.
PR 12-AUG-1999; 99US-0148341P.
PR 13-AUG-1999; 99US-0148565P.
PR 13-AUG-1999; 99US-0148684P.
PR 16-AUG-1999; 99US-0149368P.
PR 17-AUG-1999; 99US-0149175P.
PR 18-AUG-1999; 99US-0149426P.
PR 20-AUG-1999; 99US-0149722P.
PR 20-AUG-1999; 99US-0149723P.
PR 20-AUG-1999; 99US-0149929P.
PR 23-AUG-1999; 99US-0149902P.
PR 23-AUG-1999; 99US-0149930P.
PR 25-AUG-1999; 99US-0150566P.
PR 26-AUG-1999; 99US-0150884P.
PR 27-AUG-1999; 99US-0151065P.
PR 27-AUG-1999; 99US-0151066P.
PR 27-AUG-1999; 99US-0151080P.
PR 30-AUG-1999; 99US-0151303P.
PR 31-AUG-1999; 99US-0151438P.
PR 01-SEP-1999; 99US-0151930P.
PR 07-SEP-1999; 99US-0152363P.
PR 10-SEP-1999; 99US-0153070P.
PR 13-SEP-1999; 99US-0153758P.
PR 15-SEP-1999; 99US-0154018P.
PR 16-SEP-1999; 99US-0154039P.
PR 20-SEP-1999; 99US-0154779P.
PR 22-SEP-1999; 99US-0155139P.
PR 23-SEP-1999; 99US-0155486P.
PR 24-SEP-1999; 99US-0155659P.
PR 28-SEP-1999; 99US-0156458P.
PR 29-SEP-1999; 99US-0156596P.
PR 04-OCT-1999; 99US-0157117P.
PR 05-OCT-1999; 99US-0157753P.
PR 06-OCT-1999; 99US-0157865P.
PR 07-OCT-1999; 99US-0158029P.

```
PR   08-OCT-1999;   99US-0158232P.
PR   12-OCT-1999;   99US-0158369P.
PR   13-OCT-1999;   99US-0159293P.
PR   13-OCT-1999;   99US-0159294P.
PR   13-OCT-1999;   99US-0159295P.
PR   14-OCT-1999;   99US-0159329P.
PR   14-OCT-1999;   99US-0159330P.
PR   14-OCT-1999;   99US-0159331P.
PR   14-OCT-1999;   99US-0159637P.
PR   14-OCT-1999;   99US-0159638P.
PR   18-OCT-1999;   99US-0159584P.
PR   21-OCT-1999;   99US-0160741P.
PR   21-OCT-1999;   99US-0160767P.
PR   21-OCT-1999;   99US-0160768P.
PR   21-OCT-1999;   99US-0160770P.
PR   21-OCT-1999;   99US-0160814P.
PR   21-OCT-1999;   99US-0160815P.
PR   22-OCT-1999;   99US-0160980P.
PR   22-OCT-1999;   99US-0160981P.
PR   22-OCT-1999;   99US-0160989P.
PR   25-OCT-1999;   99US-0161404P.
PR   25-OCT-1999;   99US-0161405P.
PR   25-OCT-1999;   99US-0161406P.
PR   26-OCT-1999;   99US-0161359P.
PR   26-OCT-1999;   99US-0161360P.
PR   26-OCT-1999;   99US-0161361P.
PR   28-OCT-1999;   99US-0161920P.
PR   28-OCT-1999;   99US-0161992P.
PR   28-OCT-1999;   99US-0161993P.
PR   29-OCT-1999;   99US-0162142P.

  Query Match             77.3%;  Score 34;  DB 3;  Length 334;
  Best Local Similarity   66.7%;  Pred. No. 1.4e+02;
  Matches    6;  Conservative    2;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 KIYVSLAHV 9
              ::|||| ||
Db        290 RVYVSLFHV 298


RESULT 12
ABR41531
ID   ABR41531 standard; protein; 348 AA.
XX
AC   ABR41531;
XX
DT   02-JUN-2003  (first entry)
XX
DE   Human DITHP protein modification/maintenance protein.
```

XX
KW Human; dithp; diagnostic and therapeutic polynucleotide; diagnosis;
KW cancer; cell proliferative disorder; autoimmune disorder;
KW inflammatory disorder; infection; hormonal disorder; metabolic disorder;
KW neurological disorder; gastrointestinal disorder; transport disorder;
KW connective tissue disorder; drug screening; proteome analysis;
KW gene therapy; antisense therapy; genotyping; transgenic animal; knock in;
KW disease model; toxicological testing; transcript imaging;
KW protein modification; protein maintenance.
XX
OS Homo sapiens.
XX
PN WO200297031-A2.
XX
PD 05-DEC-2002.
XX
PF 27-MAR-2002; 2002WO-US010056.
XX
PR 28-MAR-2001; 2001US-0279619P.
PR 29-MAR-2001; 2001US-0280067P.
PR 29-MAR-2001; 2001US-0280068P.
PR 16-MAY-2001; 2001US-0291280P.
PR 17-MAY-2001; 2001US-0291829P.
PR 17-MAY-2001; 2001US-0291849P.
PR 19-JUN-2001; 2001US-0299428P.
PR 20-JUN-2001; 2001US-0299776P.
PR 20-JUN-2001; 2001US-0300001P.
XX
PA (INCY-) INCYTE GENOMICS INC.
XX
PI Daffo A, Jones AL, Tran AB, Dahl CR, Gietzen D, Chinn J;
PI Dufour GE, Hillman JL, Yu JY, Tuason O, Yap PE, Amshey SR;
PI Daughtery SC, Dam TC, Liu TF, Nguyen DA, Kleefeld Y, Gerstin EH;
PI Peralta CH, David MH, Lewis SA, Chen AJ, Panzer SR, Harris B;
PI Flores V, Marwaha R, Lo A, Lan RY, Urashka ME;
XX
DR WPI; 2003-129518/12.
DR N-PSDB; ACC46469.
XX
PT Novel human diagnostic and therapeutic polypeptide useful for identifying
PT test compound which specifically binds to a polypeptide encoded by human
PT diagnostic and therapeutic polynucleotide, and to induce antibodies.
XX
PS Claim 27; SEQ ID NO 1066; 591pp; English.
XX
CC The invention relates to novel human diagnostic and therapeutic
CC polynucleotides designated dithp (ACC46080-ACC46749) and to their encoded
CC proteins (DITHP; ABR41136-ABR41812). The invention also relates to
CC polynucleotide sequences at least 90% identical to the dithp cDNA

```
CC   sequences of the invention; recombinant vectors, host cells and
CC   transgenic organisms comprising a dithp nucleic acid sequence; the
CC   recombinant production of DITHP proteins; antibodies specific for DITHP
CC   proteins; microarrays comprising dithp nucleic acid sequences; methods of
CC   detecting dithp nucleotide and protein sequences; methods of screening
CC   for compounds which specifically bind a DITHP protein; and methods of
CC   assessing the toxicity of test compounds using a dithp hybridisation
CC   probe. Dithp nucleic acid sequences and DITHP proteins may be used in the
CC   diagnosis of a wide variety of conditions including cancer and other cell
CC   proliferative disorders; autoimmune or inflammatory disorders; bacterial,
CC   viral, fungal or parasitic infections; hormonal disorders; metabolic
CC   disorders; neurological disorders; gastrointestinal disorders; transport
CC   disorders; and connective tissue disorders. They may also be used to
CC   screen for modulators of protein activity or gene expression. DITHP
CC   proteins can additionally be used in analysis of the proteome of a tissue
CC   or cell type and to induce antibodies. The dithp nucleic acids are
CC   additionally useful in somatic or germline gene therapy of the disorders
CC   mentioned above, as a source of antisense sequences, as a source of
CC   probes and primers, in genotyping and identification of individuals, in
CC   the generation of transgenic animal models of human disease or knock in
CC   humanised animals, in toxicological testing, and in transcript imaging.
CC   The present sequence represents a DITHP protein which is involved in
CC   protein modification and/or maintenance. Note: The sequence data for this
CC   patent did not form part of the printed specification, but was obtained
CC   in electronic format directly from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 348 AA;

  Query Match             77.3%;  Score 34;  DB 6;  Length 348;
  Best Local Similarity   66.7%;  Pred. No. 1.5e+02;
  Matches    6;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 KIYVSLAHV 9
              :||::||||
Db        109 QIYLNLAHV 117


RESULT 13
ADS21469
ID   ADS21469 standard; protein; 389 AA.
XX
AC   ADS21469;
XX
DT   02-DEC-2004  (first entry)
XX
DE   Bacterial polypeptide #10502.
XX
KW   Recombinant DNA construct; transformed plant; improved plant property;
```

KW cold tolerance; heat tolerance; drought tolerance; herbicide; osmosis;
KW pathogen tolerance; pest tolerance; plant disease resistance;
KW cell cycle pathway modification; plant growth regulator;
KW homologous recombination; seed oil yield; protein yield; carbohydrate;
KW nitrogen; phosphorus; photosynthesis; lignin; galactomannan;
KW bacterial polypeptide.
XX
OS Bacteria.
XX
PN US2003233675-A1.
XX
PD 18-DEC-2003.
XX
PF 20-FEB-2003; 2003US-00369493.
XX
PR 21-FEB-2002; 2002US-0360039P.
XX
PA (CAOY/) CAO Y.
PA (HINK/) HINKLE G J.
PA (SLAT/) SLATER S C.
PA (CHEN/) CHEN X.
PA (GOLD/) GOLDMAN B S.
XX
PI Cao Y, Hinkle GJ, Slater SC, Chen X, Goldman BS;
XX
DR WPI; 2004-061375/06.
XX
PT New recombinant DNA construct comprising a promoter positioned to provide
PT for expression of a polynucleotide encoding a polypeptide from a
PT microbial source, useful for producing plants with improved properties.
XX
PS Claim 1; SEQ ID NO 10502; 122pp; English.
XX
CC The invention relates to a recombinant DNA construct comprising a
CC promoter functional in a plant cell, where the promoter is positioned to
CC provide for expression of a polynucleotide encoding a polypeptide from a
CC microbial source. The invention also relates to a transformed plant
CC comprising the recombinant DNA construct and a method of producing a
CC transformed plant having an improved property. The plant is a crop plant
CC such as maize or soybean. The method of producing a transformed plant
CC having an improved property comprises transforming a plant with the
CC recombinant DNA construct and growing the transformed plant, where the
CC polynucleotide or polypeptide is useful for improving plant properties.
CC The recombinant DNA construct is useful for producing plants with
CC improved plant properties, e.g. improved cold, heat or drought tolerance,
CC tolerance to herbicides, extreme osmotic conditions, pathogens or pests,
CC increased resistance to plant disease, better growth rate by modification
CC of the cell cycle pathway with plant growth regulators, increased rate of
CC homologous recombination, modified seed oil or protein yield and/or

```
CC   content, improved yield by modification of carbohydrate, nitrogen or
CC   phosphorus use and/or uptake, by modification of photosynthesis or by
CC   providing improved plant growth and development under at least one stress
CC   condition, improved lignin production or improved galactomannan
CC   production. This sequence represents a bacterial polypeptide used in the
CC   scope of the invention. Note: The sequence data for this patent did not
CC   form part of the printed specification but was obtained in electronic
CC   format from USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 389 AA;

  Query Match             77.3%;  Score 34;  DB 8;  Length 389;
  Best Local Similarity   66.7%;  Pred. No. 1.7e+02;
  Matches    6;  Conservative    2;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 KIYVSLAHV 9
              ||: ||||:
Db        159 KIWTSLAHI 167


RESULT 14
AAU79764
ID   AAU79764 standard; protein; 462 AA.
XX
AC   AAU79764;
XX
DT   30-JUL-2002  (first entry)
XX
DE   Rat dipeptidyl peptidase I (DPPI) active site mutant, Asp274Gln.
XX
KW   Rat; crystal structure; dipeptidyl peptidase I; DPPI; Crohn's disease;
KW   mast cell related disease; ulcerative colitis; asthma; psoriasis;
KW   apoptosis; granzyme related disease; cancer; proteolysis; ARDS;
KW   lung emphysema; cystic fibrosis; adult respiratory distress syndrome;
KW   rheumatoid arthritis; infectious disease; cytostatic; mutant; mutein;
KW   enzyme.
XX
OS   Rattus norvegicus.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .24
FT                   /label= Signal_peptide
FT   Protein         25. .462
FT                   /label= proDPPI
FT   Misc-difference 298
FT                   /note= "Substitution of wild type Asp to Gln"
XX
PN   WO200220804-A1.
```

XX
PD 14-MAR-2002.
XX
PF 06-SEP-2001; 2001WO-DK000580.
XX
PR 08-SEP-2000; 2000DK-00001343.
PR 09-NOV-2000; 2000US-0247584P.
XX
PA (PROZ-) PROZYMEX AS.
XX
PI Olsen JG, Kadziola A, Dahl SW, Lauritzen C, Larsen S, Pedersen J;
PI Turk D, Podobnik M, Stern I;
XX
DR WPI; 2002-371880/40.
XX
PT Crystal structure of dipeptidyl peptidase I protein and structural co-
PT ordinates of the protein useful for identifying inhibitors of the protein
PT for use in treating asthma, psoriasis, Crohn's disease and cancer.
XX
PS Example 10; Page; 371pp; English.
XX
CC The present invention relates to the crystal structure of rat dipeptidyl
CC peptidase I (DPPI) protein. The invention also describes methods for
CC using structure co-ordinates of DPPI, DPPI mutants and co-complexes to
CC design compounds that bind to the active site or accessory binding sites
CC of DPPI. The methods of the invention are useful for producing DPPI,
CC identifying a potential inhibitor of DPPI or DPPI-like protein, and/or a
CC pharmaceutical composition for interfering with DPPI catalysed activation
CC of a mammalian chymase or tryptase, preferably human. The composition may
CC be used for treating a mast cell related disease (e.g. ulcerative
CC colitis, Crohn's disease, asthma and psoriasis), a disease related to
CC excessive and/or reduced apoptosis, a granzyme related disease (e.g.
CC cancer), a disease related to excessive and/or reduced proteolysis by
CC interfering with DPPI catalysed activation of cathepsin G and/or
CC leukocyte elastase (e.g. lung emphysema, cystic fibrosis, adult
CC respiratory distress syndrome (ARDS), rheumatoid arthritis and infectious
CC diseases. The present sequence represents rat DPPI active site mutant,
CC Asp274Gln (pro-DPPI numbering). Note: The present sequence is not given
CC in the specification but is created by the indexer from the information
CC given on page 301
XX
SQ Sequence 462 AA;

Query Match 77.3%; Score 34; DB 5; Length 462;
Best Local Similarity 55.6%; Pred. No. 2.1e+02;
Matches 5; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Qy 1 KIYVSLAHV 9
|:||::||:

```
Db         148 KVYVNVAHL 156


RESULT 15
AAU79765
ID   AAU79765 standard; protein; 462 AA.
XX
AC   AAU79765;
XX
DT   30-JUL-2002  (first entry)
XX
DE   Rat DPPI active site double mutant, Asn226Gln:Ser229Asn229.
XX
KW   Rat; crystal structure; dipeptidyl peptidase I; DPPI; Crohn's disease;
KW   mast cell related disease; ulcerative colitis; asthma; psoriasis;
KW   apoptosis; granzyme related disease; cancer; proteolysis; ARDS;
KW   lung emphysema; cystic fibrosis; adult respiratory distress syndrome;
KW   rheumatoid arthritis; infectious disease; cytostatic; mutant; mutein;
KW   enzyme.
XX
OS   Rattus norvegicus.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .24
FT                   /label= Signal_peptide
FT   Protein         25. .462
FT                   /label= proDPPI
FT   Misc-difference 250
FT                   /note= "Substitution of wild type Asn to Gln"
FT   Misc-difference 253
FT                   /note= "Substitution of wild type Ser to Asn"
XX
PN   WO200220804-A1.
XX
PD   14-MAR-2002.
XX
PF   06-SEP-2001; 2001WO-DK000580.
XX
PR   08-SEP-2000; 2000DK-00001343.
PR   09-NOV-2000; 2000US-0247584P.
XX
PA   (PROZ-) PROZYMEX AS.
XX
PI   Olsen JG,  Kadziola A,  Dahl SW,  Lauritzen C,  Larsen S,  Pedersen J;
PI   Turk D,  Podobnik M,  Stern I;
XX
DR   WPI; 2002-371880/40.
XX
```

```
PT   Crystal structure of dipeptidyl peptidase I protein and structural co-
PT   ordinates of the protein useful for identifying inhibitors of the protein
PT   for use in treating asthma, psoriasis, Crohn's disease and cancer.
XX
PS   Example 10; Page; 371pp; English.
XX
CC   The present invention relates to the crystal structure of rat dipeptidyl
CC   peptidase I (DPPI) protein. The invention also describes methods for
CC   using structure co-ordinates of DPPI, DPPI mutants and co-complexes to
CC   design compounds that bind to the active site or accessory binding sites
CC   of DPPI. The methods of the invention are useful for producing DPPI,
CC   identifying a potential inhibitor of DPPI or DPPI-like protein, and/or a
CC   pharmaceutical composition for interfering with DPPI catalysed activation
CC   of a mammalian chymase or tryptase, preferably human. The composition may
CC   be used for treating a mast cell related disease (e.g. ulcerative
CC   colitis, Crohn's disease, asthma and psoriasis), a disease related to
CC   excessive and/or reduced apoptosis, a granzyme related disease (e.g.
CC   cancer), a disease related to excessive and/or reduced proteolysis by
CC   interfering with DPPI catalysed activation of cathepsin G and/or
CC   leukocyte elastase (e.g. lung emphysema, cystic fibrosis, adult
CC   respiratory distress syndrome (ARDS), rheumatoid arthritis and infectious
CC   diseases. The present sequence represents rat DPPI active site double
CC   mutant, Asn226Gln:Ser229Asn (pro-DPPI numbering). Note: The present
CC   sequence is not given in the specification but is created by the indexer
CC   from the information given on page 305
XX
SQ   Sequence 462 AA;

  Query Match             77.3%;  Score 34;  DB 5;  Length 462;
  Best Local Similarity   55.6%;  Pred. No. 2.1e+02;
  Matches    5;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 KIYVSLAHV 9
              |:||::||:
Db        148 KVYVNVAHL 156


Search completed: June 30, 2008, 17:52:49
Job time : 76.875 secs
```